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Richard Boon  
Jennifer Shook  
OC Watersheds  
2301 North Glassell Street  
Orange, CA 92865

RE: **Comments for Orange County Stormwater Program NPDES Land Development Technical Advisory Group (TAG) – March 3, 2011 Meeting**

Dear Mr. Boon,

The Natural Resources Defense Council (“NRDC”) and Orange County Coastkeeper (“Coastkeeper”) appreciate the opportunity to comment on the materials released in advance of the upcoming March 3, 2011 NPDES Land Development TAG meeting for Orange County. While we note that the time allotted for comment on these materials, less than two weeks, is inadequate to allow for a full and proper review of the more than 400 pages of material included in the Model Water Quality Management Plan (“Model WQMP”), Draft Technical Guidance Manual (“TGM”), and Appendices, we are concerned that the above documents, as currently drafted, still do not properly implement the requirements of the Orange County MS4 Permits for South Orange County and North Orange County.

**Watershed Management Plans under the Permit’s Hydromodification Provisions do not Allow for a Permit’s LID Requirements to be Supplanted**

NRDC and Coastkeeper, having previously commented on this issue,<sup>1</sup> state again that section XII.D.5 of the North Orange County MS4 Permit does not allow the permittees to replace compliance with the permit’s onsite retention requirements with use of treatment systems or other options “more technically appropriate” for the watershed. Section XII.D.5 sets out provisions related to hydromodification, and by its clear language, does not exempt any project from the permit’s otherwise applicable LID requirements under section XII.C. As a result, the Model WQMP and TGM, including Section 7.II – 2.3.5 of the Model WQMP, its accompanying figures regarding Priority Projects, and section 2.4 of the TGM should be amended such that they do not imply or explicitly authorize WMP criteria to replace the onsite retention standards otherwise required by the Permit.

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<sup>1</sup> See, e.g., NRDC and Coastkeeper letters to Mr. Richard Boon, OC Watersheds, Jan. 22, 2010; Feb. 25, 2010.

### Evapotranspiration Practices Must be Considered as a Means of Retaining Stormwater Onsite

While the Draft WQMP and TGM mention the use of practices that promote, or result in evapotranspiration, in key aspects the documents conspicuously fail to properly that projects must implement evapotranspiration BMPs to retain stormwater onsite unless it is infeasible to do so.<sup>2</sup> Section 2.4 of the TGM (which identify only infiltration and harvest and use BMPs as retention practices), as well as the TGM and Model WQMP as a whole, must accurately reflect this requirement.

### The Model WQMP and TGM's Incremental Threshold Benefit Analysis is Deeply Flawed and Contravenes Critical Requirements of the Orange County MS4 Permits and the Clean Water Act

The TAG presentation on April 26, 2010, stated that “if incremental benefit of retention is less than half of target, then [the project is] not required to provide retention before moving to biotreatment.”<sup>3</sup> NRDC and Coastkeeper commented at that time that there was categorically no justification for this cutoff to be used in determining whether onsite retention is to be required at a given project:

Both permits fully contemplate that any amount of runoff up to the design storm sizing criteria that can be feasibly retained onsite, regardless of volume, is to be retained onsite. (See South Orange County Permit, at F.1.d.(4)(d) (“If onsite LID BMPs are *technically infeasible* . . . LID biofiltration BMPs may treat any volume that is not retained onsite. . . .”); North Orange County Permit, at XII.C.2, fn. 56 (bio-treatment “may be considered only if infiltration, harvesting and reuse and evapotranspiration *cannot be feasibly implemented* at a project site.”).)<sup>4</sup>

We are highly concerned that the Draft Technical Guidance retains a similar, unjustified approach to determining feasibility for use of onsite retention, and further supplants what is a site specific analysis with an oversimplified and unsupported one. Appendix XIII of the TGM purports to validate the establishment of “incremental threshold benefit criterion.” however, the analysis, which is largely unwarranted in the first place, is also highly flawed.

NRDC has commented repeatedly that there has been, repeated in the Draft WQMP and TGM here, an:

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<sup>2</sup> See South Orange County MS4 permit, at F.1.d.(4); North Orange County MS4 Permit, at XII.C.2.

<sup>3</sup> Orange County TAG for NPDES New Development/Significant Redevelopment Program, April 26, 2010 presentation, at p. 29.)

<sup>4</sup> NRDC and Coastkeeper Letter to Mr. Richard Boon, OC Watersheds, May 4, 2010.

overemphasis in TAG proceedings on the influence and scope of economic considerations in the development of ‘infeasibility’ criteria. The two Orange County permits are clear that the onsite retention of the 85th percentile storm is presumed to be feasible for any given development. . . . We remind TAG members that ‘feasible’ has been interpreted to mean ‘capable of being done’ or ‘physically possible’ as a matter of law. (*Friends of Boundary Waters Wilderness v. Thomas* (8th Cir. 1995) 53 F.3d 881, 885.) Further, the cost-effectiveness of low impact development and onsite retention practices is well demonstrated in studies and technical and economic analyses in the records for both permits.”<sup>5</sup>

The Appendices to the Draft Technical Guidance state that they are designed to implement the permits’ “priority [to] retain [runoff] on site,” and that the “Permit requirements are implicitly based on the assumption that retention of stormwater is superior to treatment and release.” Both of these statements incorrectly reflect the requirements of the final adopted permits for Orange County; onsite retention of stormwater runoff is a mandate, not a priority, and it is based upon evidence in the record, not assumptions, demonstrating that onsite retention of stormwater runoff is a superior means of addressing stormwater pollution. The statements in the Model WQMP and TGM, along with multiple others throughout the documents reflect a consistent and oft-stated preference of the permittees for use of biotreatment over use of retention practices. This preference, however fervent, is not supported by the Orange County MS4 permits or their underlying records. Nor can it be supported by reference to the maximum extent practical standard. As one state hearing board held:

[MEP] means to the fullest degree *technologically* feasible for the protection of water quality, except where costs are wholly disproportionate to the potential benefits . . . . The term ‘maximum extent practicable’ in the stormwater context implies that the mitigation measures in a stormwater permit must be more than simply adopting standard practices.

(*North Carolina Wildlife Fed. Central Piedmont Group of the NC Sierra Club v. N.C. Division of Water Quality*, 2006 WL 3890348 at ¶¶ 17-18 (N.C.O.A.H. October 13, 2006).) The permittees, and new and redevelopment projects within Orange County, are required to properly implement the permits’ unequivocal requirement to use practices that retain stormwater onsite.

Even aside from the draft documents’ improper assessment of permit requirements, the analysis presented in the Model WQMP and TGM is grossly flawed. Among the many additional issues presented by the, by its own admission, “simplified analysis” of the Appendix are:

- Appendix XIII presents estimates for unit costs of BMPs that, at a minimum, grossly overestimate the potential costs for “Low Cost” retention practices. (See Appendix XIII, at XIII-3 – XIII-4.) Low cost retention practices can be as simple as directing runoff to

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<sup>5</sup> NRDC and Coastkeeper Letter, May 4, 2010.

pervious areas of a property and making use of existing landscaping or natural features of a site, which result in little to no cost to the project.

- The Appendix presents questionable estimates for the overall pollutant removal efficiency of biotreatment. For example, while Appendix XIII estimates the range of reported efficiencies for total suspended solids (TSS) to be 79-97 percent, and total zinc to be 65-99 percent, (Appendix XIII, at XIII-5), this appears to represent the high end of the spectrum, as the recently released Draft Ventura County Technical Guidance Manual estimates these efficiencies at 54-89 percent, and 48-96 percent, respectively.<sup>6</sup>
- More troubling, Appendix XIII entirely omits mention of nitrogen or phosphorous, two common contaminants present in stormwater<sup>7</sup> for which biotreatment has been shown to be an ineffective method of pollutant removal. The Draft Ventura Technical Guidance, for example, estimates pollutant removal efficiency for total nitrogen at between only 21-54 percent,<sup>8</sup> as compared with 100 percent for runoff retained onsite.

The conclusion reached in Appendix III is similarly flawed. The Appendix states that the “minimum supportable threshold benefit criterion is approximately 40 percent capture,” because, it claims, any lower criterion “would incur costs that are disproportionately high for the water quality benefit provided.” (Appendix XIII, at XIII-9.) While we again object to the focus on economic, as opposed to technical, feasibility criteria, this statement is entirely contradicted by even the TGM’s own claim that “retention BMPs would need to achieve greater than 40 percent capture. . . to provide cost effectiveness equivalent to well designed biotreatment BMPs.” (Appendix XIII, at XIII-7.) Thus, the Appendix effectively states that retention practices are not to be required if they cost *any* amount in excess of costs for biotreatment, despite the unequivocal requirement that projects implement retention practices to the extent feasible.

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<sup>6</sup> Draft Ventura County Low Impact Development Technical Guidance Manual, November 4, 2010, at D-7, available at [http://www.swrcb.ca.gov/rwqcb4/water\\_issues/programs/stormwater/municipal/index.shtml](http://www.swrcb.ca.gov/rwqcb4/water_issues/programs/stormwater/municipal/index.shtml).

<sup>7</sup> Lawn irrigation has been identified as a “hot spot” for nutrient contamination in urban watersheds—lawns “contribute greater concentrations of Total N, Total P and dissolved phosphorus than other urban source areas . . . source research suggests that nutrient concentrations in lawn runoff can be as much as four times greater than other urban sources such as streets, rooftops or driveways.” Center for Watershed Protection (March 2003) *Impacts of Impervious Cover on Aquatic Systems* at 69; see also H.S. Garn (2002) *Effects of lawn fertilizer on nutrient concentration in runoff from lakeshore lawns, Lauderdale Lakes, Wisconsin*. U.S. Geological Survey Water- Resources Investigations Report 02-4130 (In an investigation of runoff from lawns in Wisconsin, runoff from fertilized lawns contained elevated concentrations of phosphorous and dissolved phosphorous).

<sup>8</sup> Draft Ventura County Low Impact Development Technical Guidance Manual, November 4, 2010, at D-7.

This conclusion is repugnant to the requirements of the permits and of the MEP standard. The finding and analysis are based on incorrectly stated costs, incorrectly made assumptions (or incorrectly omitted research) regarding pollutant removal efficiency, and overall, an incorrect interpretation of the Orange County MS4 Permits. Both Orange County permits fully contemplate that any amount of runoff up to the design storm sizing criteria that can be feasibly retained onsite, regardless of volume, is to be retained onsite. The TAG should remove the proposed standard for incremental threshold benefit criterion from the WQMP and TGM.

Regional LID BMPs, to the Extent Allowed under the Orange County MS4 Permits, Must Result in the Retention of Stormwater Onsite Where Feasible

To the extent that the Model WQMP and TGM interpret the Orange County MS4 Permits as allowing the use of Regional LID BMPs where onsite retention of stormwater runoff is infeasible, the Regional BMP must result in the retention, through infiltration, evapotranspiration, or capture and reuse, of the design storm volume. (See, e.g., South Orange County MS4 Permit, at F.1.d.(11) (“Regional BMPs may be used provided that the BMPs capture and retain the volume of runoff produced from the 24-hour 85th percentile storm event as defined in section F.1.d.(6)(a)(i) and that such controls are located upstream of receiving waters.”). A regional BMP that results in the discharge of stormwater is not permitted under the Orange County Permits where it is feasible to retain the runoff onsite at either the project site or through use of retention practices at a Regional BMP.

The Model WQMP and TGM Must Provide Specificity and Justification for LID Credit Programs

NRDC and Coastkeeper noted in our May 4, 2010 letter, that the types of development projects that may qualify for credits must be defined in greater detail than currently contained in the Model WQMP, which effectively restated the vague categories listed under the North Orange County Permit. Unfortunately, this concern has not been addressed in the current draft, and the categories of identified projects for which water quality credits could apply remains poorly defined and unsupported. We further noted that the approach taken in the Model WQMP would fail to satisfy the South Orange County Permit’s requirement that any “credit system clearly exhibits that it will not allow PDPs to result in a net impact from pollutant loadings over and above the impact caused by projects meeting LID requirements.” (South Orange County Permit at F.1.d.(7)(g).) The Model WQMP states that “[a]dditional information regarding applying water quality credits to LID and treatment control performance criteria . . . is included in the TGD Section 6.” (Model WQMP, at 7.II – 3.2.) However, no criteria were located in this section.

Conclusion

NRDC and Coastkeeper are alarmed at the attempts to weaken otherwise unambiguous permit provisions and the attempted re-litigation of LID requirements through the TAG in

contravention of the public process by which the two permits were adopted. Our organizations have submitted multiple comments on the Model WQMP and TGM after prior TAG meetings and in response to significant revisions of the draft documents, raising often identical concerns to those stated here to little or no avail. Our substantive comments have been acknowledged, at times, and then thoroughly ignored to the detriment of the finalized document. The Model WQMP, TGM, and associated Appendices as currently drafted fail to properly implement the requirements clearly set forth in the MS4 permits for Orange County, and should be revised accordingly.

Thank you for your consideration, please do not hesitate to contact us if you have any questions regarding this or any previous comment.

Sincerely,



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Natural Resources Defense Council



Garry Brown  
Executive Director  
Orange County Coastkeeper